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AT&T CORP. ROOM 2A207 ONE AT&T WAY BEDMINSTER, NJ 07921			EXAMINER PATEL, HARESH N	
			ART UNIT 2154	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/782,508

Applicant(s)

JAYAWARDENA ET AL.

Examiner

Haresh Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/31/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2154

### **DETAILED ACTION**

1. Claims 1-19 are subject to examination.

#### ***Drawings***

2. The figures submitted on 2/18/04 are acknowledged.

#### ***Information Disclosure Statement***

3. An initialed and dated copy of the applicant's IDS form 1449, paper dated 3/31/2006, is attached to the instant Office action.

#### ***Claim Objections***

4. Claims 1-11 are objected to because of the following informalities:

“adapted to” should be replaced with a gerund in order to make the limitation more positive for examination. Appropriate correction is requested.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Following claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 and its dependent claims recite the limitations, “the same”. There is insufficient antecedent basis for this limitation in the claim (Please see MPEP 706.03(d)).

Claim 1 and its dependent claims recite the limitations, “higher preference”. These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim. It is not apparent “for what” the preference is.

Claim 5 recite the limitations, “can be”. These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim.

Claim 6 and its dependent claims recite the limitations, “to be”. These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim.

Claim 6 and its dependent claims recite the limitations, “being less than”. These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim. It is not apparent “for what” the less than is.

Claim 7 and its dependent claims recite the limitations, “the same”. There is insufficient antecedent basis for this limitation in the claim (Please see MPEP 706.03(d)).

Claim 7 and its dependent claims recite the limitations, “higher preference”. These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim. It is not apparent “for what” the preference is.

Claims 9 and 10 recite the limitations, “possibly”. These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim.

The terms “black-holing”, “non-black-holing” in claim 12 and its dependent claims is a relative term, which renders the claim indefinite. It is not apparent, as per the claimed invention, distinction of black-holing versus non-black-holing for the routers.

Claim 17 recites the limitations, “higher preference”. These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim. It is not apparent “for what” the preference is.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-6, 8-13, 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Donaghey WO 02/25402 (Hereinafter Donaghey).

8. Referring to claim 1, DONAGHEY discloses an internet service provider (ISP) network (e.g., page 3) comprising: a plurality of routers connected to provide an internet protocol network (IP); a first router, of said plurality of routers, in communication with an internet application, said internet application having a first IP address (e.g., page 3); a black-hole router in communication with said plurality of routers, said black-hole router adapted to have a bogus IP address that is the same as said first IP address (e.g., page 4), said bogus IP address having a higher preference than said first IP address; wherein either one of said plurality of routers or said black-hole router is adapted to inject a black-hole route scheme into a dynamic routing protocol

Art Unit: 2154

used by said ISP network such that selected ones of said plurality of routers route traffic to said bogus address of said black-hole router (e.g., page 7).

9. Referring to claim 3, DONAGHEY discloses the claimed limitations rejected as above.

DONAGHEY also discloses wherein said black-hole route is injected when said internet application is under a Distributed Denial of Service (DDoS) attack (e.g., page 3).

10. Referring to claim 4, DONAGHEY discloses the claimed limitations rejected as above.

DONAGHEY also discloses wherein said selected ones of said plurality of routers route traffic to said bogus address via a consistent scheme (e.g., page 4).

11. Referring to claim 5, DONAGHEY discloses the claimed limitations rejected as above.

DONAGHEY also discloses wherein said selected ones of said plurality of routers can be changed in real-time by injecting a new black-hole route scheme into said dynamic routing protocol (e.g., page 7).

12. Referring to claim 6, DONAGHEY discloses the claimed limitations rejected as above.

DONAGHEY also discloses an internet service provider (ISP) network (e.g., page 3) comprising: a first router in communication with said ISP network (e.g., page 3); an internet application, having a first IP address, in communication with said first router, said first router directing internet traffic to said first IP address of said internet application (e.g., page 3); and a second router, adapted to be a black-hole router, in communication with said ISP network (e.g.,

Art Unit: 2154

page 4), said second router adapted to receive internet traffic that was originally addressed to said first IP address, but was re-routed through predetermined routers within said ISP network, said predetermined routers being less than all the routers in said ISP network (e.g., page 7).

13. Referring to claim 8, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses wherein said internet traffic originally addressed to said first IP address, but rerouted through predetermined routers comprises possibly both attack traffic and legitimate traffic (e.g., page 8).

14. Referring to claim 9, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses wherein said attack traffic comprises possibly but not limited to PING or SYN messages (e.g., page 4).

15. Referring to claim 10, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses wherein said internet traffic addressed to said first IP address, but rerouted through predetermined routers comprises possibly both attack traffic and legitimate traffic (e.g., page 9).

16. Referring to claim 11, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses wherein said predetermined routers create consistent routing to said second router (e.g., page 3).

Art Unit: 2154

17. Referring to claim 12, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses a method of black-holing internet traffic in an ISP network (e.g., page 3), said method comprising: injecting, by a first router, an instruction into said ISP network (e.g., page 3); responding to said instruction, by a plurality of routers within said ISP network, such that a first number of routers become black-holing routers and a second number of routers become non-black-holing routers (e.g., page 4); routing internet traffic addressed for a first IP address, by said non-black-holing routers, to an internet application having said first IP address (e.g., page 4); and routing internet traffic addressed for said first IP address, by said black-holing routers, to a black-hole router having said first IP address (e.g., page 7).

18. Referring to claim 13, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses wherein said instruction is a dynamic routing protocol instruction (e.g., page 7).

19. Referring to claim 15, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses wherein each said black-holing router provides said internet traffic, routed toward said black-hole router, to a next-hop black-holing router (e.g., page 8).

20. Referring to claim 16, DONAGHEY discloses the claimed limitations rejected as above. DONAGHEY also discloses changing the number of said first number of routers and said second number of routers in real-time (e.g., page 9).



Art Unit: 2154

21. Referring to claim 17, DONAGHEY discloses the claimed limitations rejected as above.

DONAGHEY also discloses wherein the route to said black-hole router having said first IP address has a higher preference when compared to the preference of the route to said internet application having said first IP address (e.g., page 9).

22. Referring to claim 18, DONAGHEY discloses the claimed limitations rejected as above.

DONAGHEY also discloses wherein said steps of routing internet traffic on the router to said black-hole router is consistent routing (e.g., page 7).

23. Referring to claim 19, DONAGHEY discloses the claimed limitations rejected as above.

DONAGHEY also discloses wherein consistent routing requires that a black- holing router in said ISP network routes traffic having said first IP address to other black- holing routers and wherein non-black-holing router routes said first IP address to other non- black-holing routers (e.g., page 8).

***Claim Rejections - 35 USC § 103***

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 2, 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donaghey in view of "Official Notice".

Art Unit: 2154

26. Referring to claims 2 and 14, Donaghey does not specifically mention about Boarder Gateway Protocol. "Official Notice" is taken that both the concept and advantages of providing Boarder Gateway Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Boarder Gateway Protocol with the teachings of Donaghey in order to facilitate usage of the protocol because it would support filtering information passing through the router. The boarder gateway protocol being a dynamic routing protocol would support filtering packets during routing at a router.

27. Referring to claim 7, Donaghey discloses the claimed limitations rejected as above. Donaghey also discloses a third router in communication with said ISP network, said third router adapted to use an Interior Gateway Protocol (IGP) to inject a black-hole address (e.g., page 8), which is the same as the first IP address, but with a higher preference, into at least said predetermined routers within said ISP network such that internet traffic originally addressed to said first IP address and routed through said predetermined routers is redirected to said second router (e.g., page 10). Donaghey does not specifically mention about Boarder Gateway Protocol. "Official Notice" is taken that both the concept and advantages of providing Interior Gateway Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Interior Gateway Protocol with the teachings of Donaghey in order to facilitate usage of the protocol because it would support routing information through the router. The Interior gateway protocol would support routing internet traffic to specified addresses.

28. Claims 1, 3-6, 8-13, 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Chesla et al. 20040250124 (Hereinafter Chesla).

29. Referring to claim 1, Chesla discloses an internet service provider (ISP) network comprising: a plurality of routers connected to provide an internet protocol network (IP) (e.g., page 3); a first router, of said plurality of routers, in communication with an internet application, said internet application having a first IP address (e.g., page 3); a black-hole router in communication with said plurality of routers, said black-hole router adapted to have a bogus IP address that is the same as said first IP address, said bogus IP address having a higher preference than said first IP address (e.g., page 4); wherein either one of said plurality of routers or said black-hole router is adapted to inject a black-hole route scheme into a dynamic routing protocol used by said ISP network such that selected ones of said plurality of routers route traffic to said bogus address of said black-hole router (e.g., page 4).

30. Referring to claim 3, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said black-hole route is injected when said internet application is under a Distributed Denial of Service (DDoS) attack (e.g., page 3).

31. Referring to claim 4, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said selected ones of said plurality of routers route traffic to said bogus address via a consistent scheme (e.g., page 3).

Art Unit: 2154

32. Referring to claim 5, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said selected ones of said plurality of routers can be changed in real-time by injecting a new black-hole route scheme into said dynamic routing protocol (e.g., page 4).

33. Referring to claim 6, Chesla discloses the claimed limitations rejected as above. Chesla also discloses an internet service provider (ISP) network (e.g., page 3) comprising: a first router in communication with said ISP network (e.g., page 3); an internet application, having a first IP address, in communication with said first router, said first router directing internet traffic to said first IP address of said internet application (e.g., page 3); and a second router, adapted to be a black-hole router, in communication with said ISP network, said second router adapted to receive internet traffic that was originally addressed to said first IP address (e.g., page 4), but was re-routed through predetermined routers within said ISP network, said predetermined routers being less than all the routers in said ISP network (e.g., page 4).

34. Referring to claim 8, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said internet traffic originally addressed to said first IP address, but rerouted through predetermined routers comprises possibly both attack traffic and legitimate traffic (e.g., page 4).

Art Unit: 2154

35. Referring to claim 9, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said attack traffic comprises possibly but not limited to PING or SYN messages (e.g., page 5).

36. Referring to claim 10, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said internet traffic addressed to said first IP address, but rerouted through predetermined routers comprises possibly both attack traffic and legitimate traffic (e.g., page 5).

37. Referring to claim 11, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said predetermined routers create consistent routing to said second router (e.g., page 6).

38. Referring to claim 12, Chesla discloses the claimed limitations rejected as above. Chesla also discloses a method of black-holing internet traffic in an ISP network (e.g., page 3), said method comprising: injecting, by a first router, an instruction into said ISP network; responding to said instruction, by a plurality of routers within said ISP network, such that a first number of routers become black-holing routers and a second number of routers become non-black-holing routers (e.g., page 3); routing internet traffic addressed for a first IP address, by said non-black-holing routers, to an internet application having said first IP address (e.g., page 4); and routing internet traffic addressed for said first IP address, by said black-holing routers, to a black-hole router having said first IP address (e.g., page 4).

Art Unit: 2154

39. Referring to claim 13, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said instruction is a dynamic routing protocol instruction (e.g., page 4).

40. Referring to claim 15, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein each said black-holing router provides said internet traffic, routed toward said black-hole router, to a next-hop black-holing router (e.g., page 7).

41. Referring to claim 16, Chesla discloses the claimed limitations rejected as above. Chesla also discloses changing the number of said first number of routers and said second number of routers in real-time (e.g., page 6).

42. Referring to claim 17, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein the route to said black-hole router having said first IP address has a higher preference when compared to the preference of the route to said internet application having said first IP address (e.g., page 5).

43. Referring to claim 18, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein said steps of routing internet traffic on the router to said black-hole router is consistent routing (e.g., page 4).

44. Referring to claim 19, Chesla discloses the claimed limitations rejected as above. Chesla also discloses wherein consistent routing requires that a black-holing router in said ISP network

Art Unit: 2154

routes traffic having said first IP address to other black- holing routers and wherein non-black- holing router routes said first IP address to other non- black-holing routers (e.g., page 5).

45. Claims 2, 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chesla in view of “Official Notice”.

46. Referring to claims 2 and 14, Chesla does not specifically mention about Boarder Gateway Protocol. “Official Notice” is taken that both the concept and advantages of providing Boarder Gateway Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Boarder Gateway Protocol with the teachings of Chesla in order to facilitate usage of the protocol because it would support filtering information passing through the router. The boarder gateway protocol being a dynamic routing protocol would support filtering packets during routing at a router.

47. Referring to claim 7, Chesla discloses the claimed limitations rejected as above. Chesla also discloses a third router in communication with said ISP network, said third router adapted to use an Interior Gateway Protocol (IGP) to inject a black-hole address (e.g., page 6), which is the same as the first IP address, but with a higher preference, into at least said predetermined routers within said ISP network such that internet traffic originally addressed to said first IP address and routed through said predetermined routers is redirected to said second router (e.g., page 5).

Chesla does not specifically mention about Boarder Gateway Protocol. “Official Notice” is taken that both the concept and advantages of providing Interior Gateway Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 2154

invention was made to include Interior Gateway Protocol with the teachings of Chesla in order to facilitate usage of the protocol because it would support routing information through the router.

The Interior gateway protocol would support routing internet traffic to specified addresses.

48. Claims 1, 3-6, 8-13, 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen, 2003/0172145 (Hereinafter Nguyen).

49. Referring to claim 1, Nguyen discloses an internet service provider (ISP) network (e.g., page 6) comprising: a plurality of routers connected to provide an internet protocol network (IP) (e.g., page 6); a first router, of said plurality of routers, in communication with an internet application, said internet application having a first IP address (e.g., page 6); a black-hole router in communication with said plurality of routers, said black-hole router adapted to have a bogus IP address that is the same as said first IP address, said bogus IP address having a higher preference than said first IP address (e.g., page 7); wherein either one of said plurality of routers or said black-hole router is adapted to inject a black-hole route scheme into a dynamic routing protocol used by said ISP network such that selected ones of said plurality of routers route traffic to said bogus address of said black-hole router (e.g., page 7).

50. Referring to claim 3, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses wherein said black-hole route is injected when said internet application is under a Distributed Denial of Service (DDoS) attack (e.g., page 8).



Art Unit: 2154

51. Referring to claim 4, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses wherein said selected ones of said plurality of routers route traffic to said bogus address via a consistent scheme (e.g., page 7).

52. Referring to claim 5, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses wherein said selected ones of said plurality of routers can be changed in real-time by injecting a new black-hole route scheme into said dynamic routing protocol (e.g., page 7).

53. Referring to claim 6, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses an internet service provider (ISP) network (e.g., page 6 ) comprising: a first router in communication with said ISP network (e.g., page 6); an internet application, having a first IP address, in communication with said first router, said first router directing internet traffic to said first IP address of said internet application (e.g., page 6); and a second router, adapted to be a black-hole router, in communication with said ISP network, said second router adapted to receive internet traffic that was originally addressed to said first IP address (e.g., page 7), but was re-routed through predetermined routers within said ISP network, said predetermined routers being less than all the routers in said ISP network (e.g., page 7).

54. Referring to claim 8, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses wherein said internet traffic originally addressed to said first IP address, but

Art Unit: 2154

rerouted through predetermined routers comprises possibly both attack traffic and legitimate traffic (e.g., page 8).

55. Referring to claim 9, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses wherein said attack traffic comprises possibly but not limited to PING or SYN messages (e.g., page 8).

56. Referring to claim 10, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses wherein said internet traffic addressed to said first IP address, but rerouted through predetermined routers comprises possibly both attack traffic and legitimate traffic (e.g., page 7).

57. Referring to claim 11, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses wherein said predetermined routers create consistent routing to said second router (e.g., page 6).

58. Referring to claim 12, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses a method of black-holing internet traffic in an ISP network (e.g., page 6), said method comprising: injecting, by a first router, an instruction into said ISP network (e.g., page 6); responding to said instruction, by a plurality of routers within said ISP network, such that a first number of routers become black-holing routers and a second number of routers become non-black-holing routers (e.g., page 7); routing internet traffic addressed for a first IP

Art Unit: 2154

address, by said non-black-holing routers, to an internet application having said first IP address (e.g., page 7); and routing internet traffic addressed for said first IP address, by said black-holing routers, to a black-hole router having said first IP address (e.g., page 7).

59. Referring to claim 13, Nguyen discloses the claimed limitations rejected as above.

Nguyen also discloses wherein said instruction is a dynamic routing protocol instruction (e.g., page 8).

60. Referring to claim 15, Nguyen discloses the claimed limitations rejected as above.

Nguyen also discloses wherein each said black-holing router provides said internet traffic, routed toward said black-hole router, to a next-hop black-holing router (e.g., page 8).

61. Referring to claim 16, Nguyen discloses the claimed limitations rejected as above.

Nguyen also discloses changing the number of said first number of routers and said second number of routers in real-time (e.g., page 7).

62. Referring to claim 17, Nguyen discloses the claimed limitations rejected as above.

Nguyen also discloses wherein the route to said black-hole router having said first IP address has a higher preference when compared to the preference of the route to said internet application having said first IP address (e.g., page 6).

Art Unit: 2154

63. Referring to claim 18, Nguyen discloses the claimed limitations rejected as above.

Nguyen also discloses wherein said steps of routing internet traffic on the router to said black-hole router is consistent routing (e.g., page 6).

64. Referring to claim 19, Nguyen discloses the claimed limitations rejected as above.

Nguyen also discloses wherein consistent routing requires that a black-holing router in said ISP network routes traffic having said first IP address to other black-holing routers and wherein non-black-holing router routes said first IP address to other non-black-holing routers (e.g., page 7).

65. Claims 2, 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen in view of "Official Notice".

66. Referring to claims 2 and 14, Nguyen does not specifically mention about Boarder Gateway Protocol. "Official Notice" is taken that both the concept and advantages of providing Boarder Gateway Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Boarder Gateway Protocol with the teachings of Nguyen in order to facilitate usage of the protocol because it would support filtering information passing through the router. The boarder gateway protocol being a dynamic routing protocol would support filtering packets during routing at a router.

67. Referring to claim 7, Nguyen discloses the claimed limitations rejected as above. Nguyen also discloses a third router in communication with said ISP network, said third router adapted to use an Interior Gateway Protocol (IGP) to inject a black-hole address (e.g., page 7), which is the

Art Unit: 2154

same as the first IP address, but with a higher preference, into at least said predetermined routers within said ISP network such that internet traffic originally addressed to said first IP address and routed through said predetermined routers is redirected to said second router (e.g., page 7).

Nguyen does not specifically mention about Boarder Gateway Protocol. "Official Notice" is taken that both the concept and advantages of providing Interior Gateway Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Interior Gateway Protocol with the teachings of Nguyen in order to facilitate usage of the protocol because it would support routing information through the router. The Interior gateway protocol would support routing internet traffic to specified addresses.

### ***Conclusion***

Multiple references are used for the rejections to demonstrate that several references disclose the broadly claimed subject matter of the claims.

Examiner has cited particular columns and line numbers and/or paragraphs and/or sections and/or page numbers in the reference(s) as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety, as potentially teaching, all or part of the claimed invention, as well as the context of the passage, as taught by the prior art or disclosed by the Examiner.

Art Unit: 2154

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached at (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Haresh Patel *Haresh Patel*

September 18, 2007